access to a high performance mechanism that directly manipulates a bit map image of a region of the screen. This allows frame-based animation of a portion of the screen. Finally, the multimedia graphical user interface software used in the present invention provides enhanced timer services. This makes possible synchronization of audio and video events.

Driver types used in the workstation **10** of the present invention acknowledge the fact that each addition that requires a new piece of hardware also requires a driver to interface the graphical user interface system. In the present invention, there are essentially four types of drivers, including DOS/TSR drivers, normal graphical user interface drivers, multimedia drivers, and system drivers.

In the workstation **10** of the present invention, a DOS/TSR driver **640** will be used to implement communication functions for the data/fax/voice modem circuit **44**. For these applications, the GUI software **636** and GUI driver **638** as well as DOS/TSR driver **640** of FIG. **49** illustrate this relationship. The multimedia graphical user interface software of the present invention includes two major modules that contain most of the multimedia functions. As FIG. **49** indicates, control for external devices is provided by the media control interface **622** and by the multimedia system dynamic link library (DLL) **628**. The multimedia system DLL **628** provides direct access to all of the individual multimedia devices through multimedia drivers **630**.

Although the media control interface **622** is a logically higher level applications programming interface (API) as shown in FIG. **49**; it physically resides in multimedia system DLL **628**. The multimedia drivers **630** are typically provided by each manufacturer for their own unique hardware. The graphical user interface used in the present invention defines entry points and messages between multimedia system DLL **628** and multimedia driver **630**, so each manufacturer only has to provide the drivers to make its hardware work with the present invention. This is similar to the way in which conventional video drivers are interfaced to normal graphical user interface software. In short, multimedia system DLL **628** provides a consistent interface for application programs and multimedia drivers **630** do the actual communication with the hardware.

The audio multimedia circuit provides sampled sound in, sampled sound out, MIDI in, MIDI out, and MIDI instrument functions for the present invention. System drivers **626** will use the multimedia graphical user interface specified interfaces for these functions. A new API for the special features unique to the present invention are defined in system software DLL **624**. System software dynamic link library **624** is analogous to multimedia system DLL **628** in the sense that it will define a standard interface for applications. This also allows authoring tools to connect to the enhanced workstation multimedia functions. System software DLL uses system driver **626** to talk directly to various hardware components within the present invention.

A special case of system drivers **626** is the CD-ROM **28** driver set. The CD-ROM **28** driver set comprises the MSCDEX (Microsoft CD-ROM extension) **632** and hardware specific CD-ROM driver **634**. CD-ROM driver **634** specified to drive while MSCDEX **632** provides DOS file level access to the driver. MSCDEX **632** essentially lets the DOS file system access the CD-ROM **28** as another drive on the system. In this manner, CD-ROM **28** can be used as a data storage device. MSCDEX **632** also provides access to audio functions of CD-ROM **28** such as playing an audio compact disk. MSCDEX **632** is analogous to the multimedia system DLL **628** in the sense that MSCDEX **632** provides a standard interface and the hardware specific driver, CD-ROM **634**, communicates directly with CD-ROM **28**. The major difference between graphical user interface drivers **638** and CD-ROM driver **634** is that CD-ROM **634** works from DOS as well as within the graphical user interface software.

Although the invention has been described with reference to the above specified embodiments, this description is not meant to be construed in a limiting sense. Various modifications of the disclosed embodiment, as well as alternative embodiments of the invention will become apparent to persons skilled in the art upon reference to the above description. It is therefore contemplated that the appended claims will cover such modifications that fall within the true scope of the invention.

What is claimed is:

1. A remotely controllable computing and multimedia entertainment system, comprising:

a personal computer comprising a personal computer chassis and a monitor;

an entertainment circuit for receiving a plurality of entertainment signals, said entertainment circuit comprising in association with said personal computer and in said personal computer chassis a radio frequency circuit, a television circuit and an audio multimedia circuit;

said radio frequency circuit for receiving a plurality of radio frequency signals, said radio frequency circuit comprising circuitry for recording said radio frequency signals within said personal computer;

said television circuit for receiving a plurality of television signals, said television circuit further comprising circuitry for associating said television circuit with video graphics array monitor circuitry;

said audio multimedia circuit further associated with said radio frequency circuit and said television circuit for programmably controlling and integrating said radio frequency signals with said television signals, said audio multimedia circuit comprising an analog mixing circuit for mixing a plurality of analog audio signals, and an analog-to-digital/digital-to-analog converter in association with said analog mixture circuit for generating a plurality of analog output signals and directing said analog output signals to said analog mixing circuit, said analog-to-digital/digital-to-analog converter further associated with said analog mixing circuit for receiving a plurality of analog audio signals to generate a plurality of digital output signals; and

a telephone circuit for communicating over a telephone line a plurality of telephone input signals, said telephone circuit comprising a data/fax/-voice modem circuit for communicating over said telephone line data, fax, and voice telephone signals; and a remote control circuit comprising a receiving circuit and a remote control device and in association with said personal computer for transmitting control signals to said receiving circuit, said receiving circuit associated with said personal computer for programmably controlling said entertainment circuit, said remote con-